



IFWO

RAW SEQUENCE LISTING

DATE: 10/01/2004

PATENT APPLICATION: US/10/668,178

TIME: 12:24:04

Input Set : A:\updated sequence listing.txt

Output Set: N:\CRF4\10012004\J668178.raw

3 <110> APPLICANT: KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO
 4 MAYUMI, Tadanori
 5 TSUTSUMI, Yasuo
 6 NAKAGAWA, Shinsaku
 7 IKEGAMI, Hakuo
 9 <120> TITLE OF INVENTION: Biologically-active conjugate
 11 <130> FILE REFERENCE: MAYUMI2A
 13 <140> CURRENT APPLICATION NUMBER: 10/668,178
 14 <141> CURRENT FILING DATE: 2003-09-24
 16 <150> PRIOR APPLICATION NUMBER: JP 83509/2002
 17 <151> PRIOR FILING DATE: 2002-03-25
 19 <150> PRIOR APPLICATION NUMBER: JP 185387/2002
 20 <151> PRIOR FILING DATE: 2002-06-26
 22 <160> NUMBER OF SEQ ID NOS: 16
 24 <170> SOFTWARE: PatentIn version 3.3
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 157
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Homo sapiens
 31 <400> SEQUENCE: 1
 33 Val Arg Ser Ser Arg Thr Pro Ser Asp Lys Pro Val Ala His Val
 34 1 5 10 15
 37 Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg
 38 20 25 30
 41 Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu
 42 35 40 45
 45 Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe
 46 50 55 60
 49 Lys Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile
 50 65 70 75 80
 53 Ser Arg Ile Ala Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala
 54 85 90 95
 57 Ile Lys Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys
 58 100 105 110
 61 Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys
 62 115 120 125
 65 Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe
 66 130 135 140
 69 Ala Glu Ser Gly Gln Val Tyr Phe Gly Ile Ile Ala Leu
 70 145 150 155
 73 <210> SEQ ID NO: 2
 74 <211> LENGTH: 157
 75 <212> TYPE: PRT



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76 <213> ORGANISM: Artificial
78 <220> FEATURE:
79 <223> OTHER INFORMATION: synthetic (Variant protein of human tumor necrosis factor)
82 <220> FEATURE:
83 <221> NAME/KEY: misc_feature
84 <222> LOCATION: (11)..(11)
85 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (65)..(65)
90 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
92 <220> FEATURE:
93 <221> NAME/KEY: misc_feature
94 <222> LOCATION: (90)..(90)
95 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
97 <220> FEATURE:
98 <221> NAME/KEY: misc_feature
99 <222> LOCATION: (98)..(98)
100 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <222> LOCATION: (112)..(112)
105 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
107 <220> FEATURE:
108 <221> NAME/KEY: misc_feature
109 <222> LOCATION: (128)..(128)
110 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
112 <400> SEQUENCE: 2
W--> 114 Val Arg Ser Ser Ser Arg Thr Pro Ser Asp Xaa Pro Val Ala His Val
115 1 5 10 15
118 Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg
119 20 25 30
122 Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu
123 35 40 45
126 Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe
127 50 55 60
130 Xaa Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile
131 65 70 75 80
134 Ser Arg Ile Ala Val Ser Tyr Gln Thr Xaa Val Asn Leu Leu Ser Ala
135 85 90 95
138 Ile Xaa Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Xaa
139 100 105 110
142 Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Xaa
143 115 120 125
146 Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe
147 130 135 140
150 Ala Glu Ser Gly Gln Val Tyr Phe Gly Ile Ile Ala Leu
151 145 150 155
154 <210> SEQ ID NO: 3

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155 <211> LENGTH: 157
156 <212> TYPE: PRT
157 <213> ORGANISM: Artificial
159 <220> FEATURE:
160 <223> OTHER INFORMATION: synthetic (Variant protein of human tumor necrosis factor)
162 <400> SEQUENCE: 3
164 Val Arg Ser Ser Ser Arg Thr Pro Ser Asp Met Pro Val Ala His Val
165 1 5 10 15
168 Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg
169 20 25 30
172 Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu
173 35 40 45
176 Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe
177 50 55 60
180 Ser Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile
181 65 70 75 80
184 Ser Arg Ile Ala Val Ser Tyr Gln Thr Pro Val Asn Leu Leu Ser Ala
185 85 90 95
188 Ile Arg Ser Pro Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Asn
189 100 105 110
192 Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Pro
193 115 120 125
196 Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe
197 130 135 140
200 Ala Glu Ser Gly Gln Val Tyr Phe Gly Ile Ile Ala Leu
201 145 150 155
204 <210> SEQ ID NO: 4
205 <211> LENGTH: 92
206 <212> TYPE: DNA
207 <213> ORGANISM: Artificial
209 <220> FEATURE:
210 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (21)..(22)
216 <223> OTHER INFORMATION: n is a, c, g, or t
218 <400> SEQUENCE: 4
W--> 219 tctactccca ggtcctcttc nnsaggccaag gctgcccctc caccatgtg ctcctcaccc 60
221 acaccatcag ccgcacgcgc gtctcctacc ag 92
224 <210> SEQ ID NO: 5
225 <211> LENGTH: 90
226 <212> TYPE: DNA
227 <213> ORGANISM: Artificial
229 <220> FEATURE:
230 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
233 <220> FEATURE:
234 <221> NAME/KEY: misc_feature
235 <222> LOCATION: (41)..(42)
236 <223> OTHER INFORMATION: n is a, c, g, or t

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238 <220> FEATURE:
239 <221> NAME/KEY: misc_feature
240 <222> LOCATION: (65)..(66)
241 <223> OTHER INFORMATION: n is a, c, g, or t
243 <400> SEQUENCE: 5
W--> 244 ggcctcagcc ccctctgggg tctccctctg gcaggggcts nngatggcag agaggaggtt      60
246 gacsnnngtc tggtaggaga cggcgatgcg      90
249 <210> SEQ ID NO: 6
250 <211> LENGTH: 110
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial
254 <220> FEATURE:
255 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
258 <220> FEATURE:
259 <221> NAME/KEY: misc_feature
260 <222> LOCATION: (40)..(41)
261 <223> OTHER INFORMATION: n is a, c, g, or t
263 <220> FEATURE:
264 <221> NAME/KEY: misc_feature
265 <222> LOCATION: (88)..(89)
266 <223> OTHER INFORMATION: n is a, c, g, or t
268 <400> SEQUENCE: 6
W--> 269 tagtcggggc gattgatctc agcgctgagt cggtcacsn nctccagctg gaagaccctt      60
271 cccagataga tgggctcata ccaggsnng gcctcagccc cctctgggt      110
274 <210> SEQ ID NO: 7
275 <211> LENGTH: 95
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial
279 <220> FEATURE:
280 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
283 <220> FEATURE:
284 <221> NAME/KEY: misc_feature
285 <222> LOCATION: (72)..(73)
286 <223> OTHER INFORMATION: n is a, c, g, or t
288 <400> SEQUENCE: 7
W--> 289 tagttgttcc tttctatgcg gccagccgg ccatggccat ggtcagatca tcttctcgaa      60
291 ccccgagtga cnsccctgta gcccatgttg tagca      95
294 <210> SEQ ID NO: 8
295 <211> LENGTH: 49
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial
299 <220> FEATURE:
300 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
302 <400> SEQUENCE: 8
303 gccagactc ggcaaagtcg agatagtcgg gccgattgat ctcagcgct      49
306 <210> SEQ ID NO: 9
307 <211> LENGTH: 36
308 <212> TYPE: DNA
309 <213> ORGANISM: Artificial

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311 <220> FEATURE:
312 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as primer with NNS sequence)
314 <400> SEQUENCE: 9
315 gttgttcctt tctatgccgc ccagccggcc atggcc 36
318 <210> SEQ ID NO: 10
319 <211> LENGTH: 58
320 <212> TYPE: DNA
321 <213> ORGANISM: Artificial
323 <220> FEATURE:
324 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as linker to insert into an
325 expression vector a cDNA coding a variant protein of human tumor
326 necrosis factor)
328 <400> SEQUENCE: 10
329 gtttaacttt aagaaggaga tatacatatg gtcagatcat cttctcgaa cccgagtg 58
332 <210> SEQ ID NO: 11
333 <211> LENGTH: 59
334 <212> TYPE: DNA
335 <213> ORGANISM: Artificial
337 <220> FEATURE:
338 <223> OTHER INFORMATION: synthetic (Oligonucleotide used as linker to insert into an
339 expression vector a cDNA coding a variant protein of human tumor
340 necrosis factor)
342 <400> SEQUENCE: 11
343 cttcctttcg ggctttgtta gcagccgaat tccagggcaa tgatcccaaa gtagacctg 59
346 <210> SEQ ID NO: 12
347 <211> LENGTH: 471
348 <212> TYPE: DNA
349 <213> ORGANISM: Artificial
351 <220> FEATURE:
352 <223> OTHER INFORMATION: synthetic (DNA coding a variant protein of human tumor
crosis
353 factor)
356 <220> FEATURE:
357 <221> NAME/KEY: CDS
358 <222> LOCATION: (1)..(471)
360 <400> SEQUENCE: 12
361 gtc aga tca tct tct cga acc ccg agt gac atg cct gta gcc cat gtt 48
362 Val Arg Ser Ser Ser Arg Thr Pro Ser Asp Met Pro Val Ala His Val
363 1 5 10 15
365 gta gca aac cct caa gct gag ggg cag ctc cag tgg ctg aac cgc cgg 96
366 Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg
367 20 25 30
369 gcc aat gcc ctc ctg gcc aat ggc gtg gag ctg aga gat aac cag ctg 144
370 Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu
371 35 40 45
373 gtg gtg cca tca gag ggc ctg tac ctc atc tac tcc cag gtc ctc ttc 192
374 Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe
375 50 55 60
377 tcg ggc caa ggc tgc ccc tcc acc cat gtg ctc ctc acc cac acc atc 240
378 Ser Gly Gln Gly Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/668,178

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Input Set : A:\updated sequence listing.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. ~~11,65,90,98,112,128~~

Seq#:4; N Pos. ~~21,22~~

Seq#:5; N Pos. ~~41,42,65,66~~

Seq#:6; N Pos. ~~40,41,88,89~~

Seq#:7; N Pos. ~~72,73~~

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:2,3,4,5,6,7,8,9,10,11,12,13,14,15,16

VERIFICATION SUMMARY

DATE: 10/01/2004

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Input Set : A:\updated sequence listing.txt

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L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
M:341 Repeated in SeqNo=2
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
M:341 Repeated in SeqNo=5
L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:60